

Certificate of Conformity

Ex EQUIPMENT

Certificate No.: **ANZEx 14.3016**

Current Issue: 4

Date of Issue: 2023-09-22

Applicant: **CMI Electrical Products**
Unit F3, 3 – 29 Birnie Avenue
Lidcombe NSW 2141
Australia

Equipment: Range of 150 A 1100 V/660 V Restrained Plugs, Dummy Plugs, Phase Condition Indicator Plugs, Back to Back Receptacles, Restrained Receptacles and Restrained Receptacles with cable gland and bracket

Type of Explosion Protection: Flameproof 'd'

Explosion Protection Marking: Ex d I Mb
IP66/IP68*
Type A
'DO NOT SEPARATE WHEN ENERGIZED'

* Refer to the Table 1

*This certificate is granted subject to the requirements as set out in
Joint Accreditation System of Australia and New Zealand Publications
ANZEx System Rules 2020 & ANZEx Certified Equipment Scheme Rules 2021*

Signed for and on behalf of issuing body



Name & Position

Debbie Wouters – Acting Quality & Certification Manager

This certificate is not transferable and remains the property of the issuing body.

The status of this certificate can be confirmed through the database located at www.anzex.com.au

Certificate issued by:

TestSafe Australia
919 Londonderry Road, Londonderry NSW 2753 Australia

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Manufacturer : **CMI Electrical Products**
Unit F3, 3 – 29 Birnie Avenue
Lidcombe NSW 2141
Australia

**Additional
Manufacturing
Location(s):** None

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

AS/NZS 1299:2009 Electrical equipment for mines and quarries – Explosion – protected three-phase restrained plugs and receptacles for working voltages up to and including 3.3 kV.
(Incorporating Amendment No. 1)

This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

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Schedule

Equipment Description:

The 150 A series comprises Restrained Plugs, Dummy Plugs, Phase Condition Indicator Plugs, Back-to-Back Receptacles, Restrained Receptacles and Restrained Receptacles with cable gland and bracket, as designated in Table 1. The restrained receptacle range is used to monitor and supply power reticulation systems and mobile equipment such as Shuttle car, Continuous miner, Longwalls, Drills rigs in mines.

The restrained receptacle, restrained receptacle with cable gland and bracket, and back-to-back receptacle are provided with a jacking screw or quick release locking mechanism. The equipment is manufactured by CMI Electrical Products, who is also known under name Minto Industrial Products (M.I.P).

The complete assembly consists of a plug, which has three power conducting (phase) sockets and one pilot circuit socket, and a receptacle with corresponding phase and pilot pin. Two plugs may be coupled together by means of a restrained coupling device referred to as restrained back-to-back receptacle. 150 A Range covers: 660 V and 1100 V all with 3-pins plus 1 pilot pin. The range uses a late make early break pilot connection for safety and has an earthed phase barrier.

The special fasteners and/or nuts used to assemble the plugs, receptacles and Ex d enclosure shall be of minimum grade 4.6 (yield stress 240 MPa).

When the receptacle is mounted to Ex d enclosure, the flanged joint between the enclosure and receptacle must be in accordance with instruction number TRP-6 to maintain the flameproof integrity of the assembly.

The manufacturer's document TRP-6 "Termination and Maintenance Instructions for 150 AMP 660/1100 VOLT Restrained Range" is available and provides instruction about installation of the equipment.

The equipment is supplied with 150A Restrained Termination and Maintenance instruction TRP-6.

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Table 1: Summary of Certified Equipment - Part Number List

Part Number	Description
AT1#4R	150A 660/1100V Restrained Phase Condition Indicator
AR1#1R	150A 660/1100V Restrained Dummy Plug
AG1#4B	150A 660/1100V Restrained Receptacle
AF1#4R	150A 660/1100V Restrained Plug
AH1#4B	150A 1100V Restrained B /B Receptacle
AG1#4BQR	150A 660/1100V Q/R Restrained Receptacle
AH1#4BQR	150A 660/1100V Q/R Restrained B /B Receptacle
F-4629-##	150A Gland Adaptor
AV1	150A Angle Mounting Bracket

Note:

Marking:

- # Volts: 6=660V, 1=1100V.
- ## Threaded Gland Entry: M16 to M63 – all x 1.5 pitch.

IP rating for the restrained receptacle when coupled with plug is in accordance with IEC 60529 only:

- IP66/IP68 (2 metres for 30 minutes) for: Restrained Plug, Back to Back Receptacle, Restrained Receptacle, Gland Adaptor and all QR Receptacles.
- IP66 only: Dummy Plug and Phase Condition Indicator Plug.

Electrical Ratings/Parameters

Up to 1100 V 150 A

Specific Conditions of Use:

None.

Additional Information:**Manufacturer Routine tests:**

- The routine verifications and tests must be applied to the equipment in accordance with Clause 3.2 of AS/NZS 1299:2009.

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Register of Issues and Variations

includes the current issue

Issue 0 dated 2014-10-23

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs: 32577 – TestSafe

QAR No. & Issuing CB: AU/TSA/QAR11.0009/02 – TestSafe

File Reference: 2014/032034

Manufacturer's Documents/Drawings associated with this issue:

Document / Drawing No.:	Pages:	Document / Drawing Title	Revision	Date (yyyy-mm-dd)
F-045	1	150A 660/1100V Restrained Phase Condition Indicator	F	2014-09-01
F-046	1	150A 660/1100V Restrained Dummy Plug	F	2014-09-01
F-234	1	150A 660/1100V Restrained Receptacle	H	2014-09-01
F-235	1	150A 660/1100V Restrained Plug	K	2014-09-01
F-308	1	150A 660/1100V Restrained B /B Receptacle	D	2014-09-01
F-467	1	150A 660/1100V Q/R Restrained Receptacle	G	2014-09-01
F-468	1	150A 660/1100V Restrained B /B Receptacle	E	2014-09-01
F-4629	1	150A Gland Adaptor	Original	2014-09-01
202-024	1	150A Mounting Bracket	H	2011-01-17

Issue 1 dated 2017-03-15

Variations Permitted by this Issue

- General drawings update, to provide more details which are not related to flameproof protection,
- Editorial corrections, and
- Table 1 above, Summary of Certified Equipment, has been amended to include the 150A Angle Mounting Bracket (Drawing No. AV1).

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs: 35878 – TestSafe

QAR No. & Issuing CB: QAR 06.004/2016 – TestSafe

File Reference: 2016/021087

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Manufacturer's Documents/Drawings associated with this issue:

Document / Drawing No.:	Pages:	Document / Drawing Title	Revision	Date (yyyy-mm-dd)
AV1	1	150A Angle Mounting Bracket	A	2017-02-22
F-045	1	150A 660/1100V Restrained Phase Condition Indicator	G	2017-02-22
F-046	1	150A 660/1100V Restrained Dummy Plug	G	2017-02-22
F-234	1	150A 660/1100V Restrained Receptacle	J	2017-02-22
F-234-1	1	Main Phase/Pilot Thimbles, Restrained Product Range	A	2017-02-22
F-235	1	150A 660/1100V Restrained Plug	L	2017-02-22
F-308	1	150A 660/1100V Restrained B /B Receptacle	E	2017-02-22
F-467	1	150A 660/1100V Q/R Restrained Receptacle	H	2017-02-22
F-468	1	150A 660/1100V Q/R Restrained B /B Receptacle	F	2017-02-22
F-4629	1	150A Gland Adaptor	A	2017-02-22

Issue 2 dated 2017-11-27:Variations Permitted by this Issue:

1. Modification to main/pilot pin insulators and interior retaining plate in receptacle to improve retention, mechanical assembly and prevent rotation. Only relevant reference drawings were accordingly modified.
2. Modification to the mounting bracket thickness with minor update in tolerance. The relevant certification drawing was revised.

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs: 36101 – TestSafe Australia
 QAR No. & Issuing CB: AU/TSA/QAR 11.0009/05 - TestSafe
 Australia File Reference: 2017/017941

Manufacturer's Documents/Drawings associated with this issue

Document / Drawing No.:	Pages:	Document / Drawing Title	Revision	Date (yyyy-mm-dd)
AV1	1	150A Angle Mounting Bracket	B	2017-10-30

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Issue 3 dated 2020-05-01:*Variations Permitted by this Issue:*

- Modification to include single piece pilot pin retained with modified insulator assembly. Flamepaths remain the same as previously certified.

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs: 36965 – TestSafe Australia

QAR No. & Issuing CB: AU/TSA/QAR 11.0009/06 - TestSafe

Australia File Reference: 2020/006161

Manufacturer's Documents/Drawings associated with this issue

Document / Drawing No.:	Pages:	Document / Drawing Title	Revision	Date (yyyy-mm-dd)
AV1	1	150A Angle Mounting Bracket	B	2017-10-30
F-045	1	150A 660/1100V Restrained Phase Condition Indicator	G	2017-02-22
F-046	1	150A 660/1100V Restrained Dummy Plug	G	2017-02-22
F-234	1	*150A 660/1100V Restrained Receptacle	K	2020-02-14
F-234-1	1	Main Phase/Pilot Thimbles, Restrained Product Range	A	2017-02-22
F-235	1	150A 660/1100V Restrained Plug	L	2017-02-22
F-308	1	150A 660/1100V Restrained B /B Receptacle	E	2017-02-22
F-467	1	*150A 660/1100V Q/R Restrained Receptacle	J	2020-02-14
F-468	1	150A 660/1100V Q/R Restrained B /B Receptacle	F	2017-02-22
F-4629	1	150A Gland Adaptor	A	2017-02-22

Note: An "*" is added before the title of documents that are new or revised.

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Issue 4 dated 2023-09-22Variations Permitted by this Issue

- Applicant and Manufacturer address has been relocated to Unit F3, 3 – 29 Birnie Avenue, Lidcombe NSW 2141 Australia, previously 18-20 Railway Road, Meadowbank NSW 2114, Australia.

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs: None

QAR No. & Issuing CB: AU/TSA/QAR11.0009/09 – TestSafe

File Reference: 2023/004677

Manufacturer's Documents/Drawings associated with this issue:

No change.